

CLAIMS

1. A method of manufacturing a glass fibre reinforced structural composite article, said method comprising the steps of spraying a mechanically blended polyester foam into a mould whilst simultaneously introducing chopped glass fibre, said mechanically blended polyester foam is foamed utilising a gas, characterised in that said polyester foam includes a polyester resin that has a viscosity in the range of 12000 – 15000 cP (Brookfield LVT sp. 4/12 rpm).
2. A method of manufacturing a glass fibre reinforced structural composite article as claimed in claim 1, wherein milled glass fibre is added to said polyester resin prior to said polyester resin being foamed and sprayed.
3. A method of manufacturing a glass fibre reinforced structural composite article as claimed in claim 2, wherein said milled glass fibre is added at 0-30% by weight.
4. A method of manufacturing a glass fibre reinforced structural composite article as claimed in claim 2, wherein said milled glass fibre is up to 2mm in length.
5. A method of manufacturing a glass fibre reinforced structural composite article as claimed in claim 1, wherein said gas is nitrogen and/or carbon dioxide.
6. An article manufactured from a glass fibre reinforced structural composite utilising a spray up process without the necessity of rolling to remove air bubbles, said composite comprising a mechanically blended polyester foam characterised in that said composite has a density in the range of 0.6 to 0.8 g/cm³.

7. An article manufactured from a glass fibre reinforced structural composite as claimed in claim 6, wherein said polyester foam includes a polyester resin that has a viscosity in the range of 12000 – 15000 cP (Brookfield LVT sp. 4/12 rpm).
8. An article manufactured from a glass fibre reinforced structural composite as claimed in claim 7, wherein milled glass fibre is added to said polyester resin prior to said polyester resin being foamed and sprayed.
9. An article manufactured from a glass fibre reinforced structural composite as claimed in claim 8, wherein said milled glass fibre is added at 0-30% by weight.
10. An article manufactured from a glass fibre reinforced structural composite as claimed in claim 8, wherein said milled glass fibre is up to 2mm in length.